Remarks

After amendment, claims 1-9, 12-17 and 21-22 are pending in the present application. Claims 10-11, and 18-20 are cancelled *without prejudice* pursuant to the Examiner's restriction requirement and Applicants' election. Support for the amendment to the claims can be found throughout the originally filed specification and claims. It is respectfully submitted that the instant amendment places the present application in condition for allowance. No new matter has been added by way of the presentation of this amendment. The claims have been amended to obviate minor concerns related to claim form.

Applicants wish to bring to the attention of the Examiner patent application serial number 10/578,974, filed May 11, 2006, which is a CIP application of the present application and a §371 of PCT/US04/37015, filed November 8, 2004.

The Examiner has rejected originally filed claims 1-9 and 12-17 under 35 U.S.C. §103 as being obvious over U.S. patent no. 4,079,028 ("Emmons") and U.S. patent no. 6,106,578 ("Jones") for the reasons which are stated in the office action on pages 4-8. Applicants respectfully traverse the Examiner's rejection for the reasons which are set forth hereinbelow and respectfully submit that the instant claims are patentable over the art cited by the Examiner.

The Examiner has rejected original claims 1-9 and 12-17 as being obvious over Emmons and Jones for the reasons which are stated in the office action. Essentially, the Examiner cites Emmons for teaching a number of polymeric molecular weight thickeners which are characterized by hydrolytic stability, versatility and efficiency and which may be applied widely to a variety of aqueous systems containing the thickeners, including personal care compositions. Jones is cited for teaching a method of thickening a hair dye composition

comprising at least one polyethoxylated urethane compound. Based upon the disclosures of Emmons and Jones, it is the Examiner's position that the presently claimed invention is obvious over one or more of Emmons and Jones. Applicants respectfully traverse the Examiner's rejection.

The present invention relates to personal care products as claimed which comprise a fattypoly(ethoxylated) dimeric urethane as claimed. The dimeric urethane compositions according to the present invention are based upon the finding that end-capping one end of a poly(ethoxylated) chain of a certain length with a fatty group (ether linkage) as claimed and then reacting the distil free hydroxyl end of the poly(ethoxylated) material with isophorone diisocyanate, produces unique compositions. These compositions, when included in personal care products, provide consistent thickening to formulations over a wide range of pH, with exceptional viscosity control, solubility/compatibility with aqueous solutions and which do not depress the foaming of surfactants in shampoos. It is respectfully submitted that the present compositions are neither disclosed, nor suggested by the art of record.

Emmons discloses a huge number of polymeric materials, none of which is identical to the present compositions. In the present invention, a poly(ethoxylated) material of a certain number of (about 50 to 120) ethoxy units as claimed is end-capped with a fatty group (long chain alkyl or alkenyl group) and the end-capped poly(ethoxylated) polymeric material is then reacted with isophorone diisocyanate to produce the dimeric urethane compositions as set forth in the claims.

Emmons discloses a huge number of compositions which are said to be useful as thickeners, primarily in latex paint compositions. Latex paint and other compositions which are disclosed by Emmons are decidedly different than the personal care compositions of the present invention. Contrary to the Examiner's contention, Emmons does not disclose the

compositions which are described therein as being useful for inclusion in personal care products, as presently claimed. In reviewing the compositions of Emmons, there is no disclosure of a composition which provides a diurethane composition according to the present invention. There is no composition in Emmons which has an end-capped fatty group linked to a poly(ethoxylated) chain which is then further reacted with isophorone diisocyanate. For example, in reviewing the generic-type chemical compositions of Emmons, and particular the species, which are described and set forth in the examples of Emmons, we see that none of the described compositions is the same or even descriptively similar to the present invention.

The closest group of compositions, examples 1-102 of Emmons, are not the same as the present invention and do not provide the same chemistry as the present invention. Indeed, in reviewing Emmons, it is noteworthy that the ethyleneoxide groups are end-capped with isocyanates, not fatty (alkyl or alkenyl) groups as in the present invention. This is an important distinction inasmuch as this chemistry for the present invention provides a degree of stability which is not available in the compositions of Emmons. Given that the distil end of the polyethyleneoxide group in the present invention is bound to the fatty (alkyl or alkenyl group) through an ether linkage, rather than a urethane linkage as described by Emmons, this distinguishes over the disclosure of Emmons and provides for greater stability of the final diurethane compositions of the present invention. This is the basis, at least in part, for the exceptional viscosity control of the present invention because the present compositions are consistent in manufacture. In addition, the present compositions are stable over a broad pH range, due to the chemistry used to provide the instant compositions. Moreover, in the case of the Emmons chemistry, in formulating that chemistry, the likelihood of a trans-carbamylation reaction (i.e., where a free hydroxyl group reacts and displaces a group on a urethane moiety) is far greater than in the present invention which has a very stable ether group at the distil end of the poly(ethylene)oxide chains and does not/cannot undergo trans-carbamylation reactions at the distil end of the polyethylene oxide chain as in the case of Emmons. In addition, Emmons

does not disclose or suggest the length of ethylene oxide chain used in the present invention, which instills favorable chemical characteristics. Thus, Emmons does not disclose or suggest the present invention.

Turning to Jones, this reference describes a number of polyethyleneoxide polyurethanes for use as thickeners in hair care compositions. Jones basically discloses in a more detailed manner that the compositions which are disclosed by Emmons can be used in hair care compositions. Jones is no more detailed than is Emmons in failing to teach the specific compositions which exhibit chemical characteristics consistent with their superior use in personal care products.

Inasmuch as Emmons (and Jones) does not disclose or suggest the specific compositions which are claimed, which exhibit favorable characteristics including exceptional viscosity control and stability over a broad pH range, it is respectfully submitted that the present compositions are patentable over the compositions of Jones. Note that Jones does not provide motivation to produce the particular compound, does not suggest the use of an isophorone diisocyanate, does not disclose or suggest the length of polyethylene oxide chains which Applicants have found to be particularly advantageous in thickening personal care products containing a surfactant, does not disclose an ether linkage between the polyethylene oxide chain and the fatty (alkyl or alkenyl) group, and does not suggest the particular chemistry which Applicants have discovered is particularly useful in personal care products because of the chemical characteristics these compositions instill in personal care products containing surfactants, it is respectfully submitted that the instant claims are clearly non-obvious over the disclosures of Emmons and Jones.

There is simply no disclosure in Emmons or Jones of the presently claimed chemisty, and no motivation to provide the compositions which are used in personal care products according to the present invention. It is the combination of an isophorone diisocyanate group, along with fatty end-capped polyethylene oxide chains of claimed length in a surfactant containing personal care

product which is the present invention. The present invention is neither disclosed nor suggested by any of the teachings of Emmons and/or Jones.

For the above reasons, Applicants respectfully assert that the claims set forth in the amendment to the application of the present invention are now in compliance with 35 U.S.C. Applicants respectfully submit that the present application is now in condition for allowance and such action is earnestly solicited.

Applicants have cancelled 4 claims (all dependent) and added 2 claims (both dependent). No fee is therefore due for the presentation of this amendment. A petition for an extension of time is enclosed as is the requisite fee. Please charge any additional fee due or credit any overpayment to Deposit Account No. 04-0838.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to:
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